

ABSTRACT

HIGH-INTENSITY ELECTROMAGNETIC RADIATION APPARATUS AND METHODS

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An apparatus for producing electromagnetic radiation includes a flow generator configured to generate a flow of liquid along an inside surface of an envelope, first and second electrodes configured to generate an electrical arc within the envelope to produce the electromagnetic radiation, and an exhaust chamber extending outwardly beyond one of the electrodes, configured to accommodate a portion of the flow of liquid. In another aspect, the flow generator is electrically insulated. In another aspect, the electrodes are configured to generate an electrical discharge pulse to produce an irradiance flash, and the apparatus includes a removal device configured to remove particulate contamination from the liquid, the particulate contamination being released during the flash and being different than that released by the electrodes during continuous operation.

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